South Dakota Ag Ed Integration Project

2011 Integration Activities

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| Activity | **Core Standard** | **AFNR Course standard** |
| **1** | **11.R.3.1** Students can analyze and explain literary devices within text.  • Recognize literary devices and communicate their effect within text:  – personification | **Introduction to Agriculture, Food and Natural Resources**  ITA3.1 Describe the major categories of natural resources in America.  • Describe local natural resources. |
| **2** | **11.R.3.1** Students can analyze and explain literary devices within text.  • Recognize literary devices and communicate their effect within text:  **–** onomatopoeia | **Leadership and Personal Development**  LPD 4.2 Employ public speaking skills to communicate an important agricultural message.  • Research current agricultural issues to determine what information needs to be shared with the public.  • Write a six to eight minute speech. |
| **3** | **11.R.4.1** Students can analyze a text within cultural, geographical, and historical context.  • Recognize the connection between the written work and the circumstances that produced it. | **Fundamental Plant Science**  FPS 1.1 Investigate articles about plant breeding and its impact on the world  • Investigate the development of new techniques of plant breeding across the United States.  • Examine the history of plant breeding and how it has impacted the successfulness of plant genetics.  • Analyze the influence of plant breeding and how it affects the rest of the world. |
| **4** | **11.R.2.1** Students can analyze how diction affects the interpretation of text.  • Identify dialect (a particular variety of language spoken in one place by a distinct group of people)  • Determine how slang, colloquialisms, and dialect impact meaning | **Horticulture**  H.1.1 Write a description for a plant species. |
| **5** | **9-12.S.1.2** Students are able to compare multiple one-variable data sets, using range, interquartile range, mean, mode, and median. | **Fundamental Animal Science**  AN5.1 Recognize optimum performance for a given animal species.  • Identify reasons why some animals perform better than others. Evaluate sire performance records |
| **6** | **9-12.G.1.2** Students are able to identify and apply relationships among triangles. | **Ag Metal Fabrication Technology**  AMF1.3 Create plans for project construction.  • Use scale measurement and dimension to develop plans and sketches for a shop project. |
| **7** | **9-12.N.2.1** Students are able to add, subtract, multiply, and divide real numbers including integral exponents. | **Ag Power Technology**  APT 3.9 Illustrate various electric motor types, operation and maintenance.  • Calculate problems using Ohm’s law. |
| **8** | **9-12.G.2.3** Students are able to use proportions to solve problems. | **Fundamental Ag Mechanics**  FAM 3.1 Create sketches of agricultural equipment.  • Utilize drawing techniques to develop a simple sketch.  • Use scale measurement and dimension to develop simple plans and sketches. |
| **9** | **9-12.G.1.1** Students are able to apply the properties of triangles and quadrilaterals to find unknown parts. | **Fundamental Ag Structures Technology**  Ag S 4.1 Assemble components of a structure  • Construct a wall.  • Construct a floor joist.  • Erect a rafter. |
| **10** | **9-12.S.2.2** Students are able to predict outcomes of simple events using given theoretical probabilities. | **Natural Resources**  NR 1.3 Examine planning data to determine natural resource status  • Collect data to determine resource availability and health of a specific natural resource.  • Analyze resource inventory and population studies of natural resources. |
| **11** | **9-12.A.3.2** Students are able to distinguish between linear and nonlinear models. | **Wildlife and Fisheries**  WF 1.1 Apply knowledge of natural resource components to the management of wildlife and fish.  • Dramatize predator and prey population relationships.  • Illustrate the interdependence of organisms within an ecosystem. |
| **12** | **9-12.N.1.1** Students are able to identify multiple representations of a real number.  • Represent rational and irrational numbers in different forms. | **Agribusiness Sales and Marketing**  ABSM 3.1 Apply reading comprehension, writing and math skills in inventory management.  • Calculate product margin (specifically net profit).  • Interpret inventory control systems |
| **13** | **9-12.A.1.1** Students are able to write equivalent forms of algebraic expressions using properties of the set of real numbers.  • Evaluate algebraic expressions. | **Agribusiness Entrepreneurship**  E 1.2 Develop management skills necessary to accomplish general business activities.  • Illustrate basic economic concepts to a given set of financial situations including opportunity cost, supply and demand and diminishing returns. |
| **14** | **9-12.N.3.2** Students are able to select alternative computational strategies and explain the chosen strategy. | **Agriscience**  AS2.2 Demonstrate plant cultural procedures.  • Demonstrate proper seeding practices. |

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| **15** | **9-12.G.2.2** Students are able to reflect across vertical or horizontal lines, and translate two-dimensional figures.  • Identify lines of symmetry. | **Introduction to Agriculture, Food and Natural Resources**  ITA 5.1 Explain functions and physiology of cells and seeds.  • Summarize the cellular structure of plants.  • Explain the structure and kinds of seeds.  • Summarize the process of seed germination. |

These examples prepared for the Office of Curriculum and Career and Technical Education, South Dakota Department of Education, by Vivayic. August 2011.